

12. A method according to claim 11 wherein the bacterium is *Ruminococcus gnavus*, *Blautia obeum* and/or *Streptococcus pneumoniae*.

13. A method according to claim 1 wherein the bacterium is *R. gnavus*.

14. A method according to claim 1 wherein Typically the transporter protein is encoded by ATCC 29149 Nan cluster.

15. A method according to claim 1 wherein the transporter protein is specific to 2,7-anhydro-Neu5Ac.

16. A method according to claim 1 wherein the substrate or solute binding protein of the ATCC 29149 Nan cluster is encoded by RUMGNA\_02698.

17. A method of treatment of a mucosal disease in a subject comprising administering a therapeutically effective amount of a transport protein inhibitor.

18. A method according to claim 17 wherein the transporter protein is specific to 2,7-anhydro-Neu5Ac.

19. A method according to claim 18 wherein the inhibition is by direct or indirect inhibition.

20. A biomarker comprising RgSBP or RgOx, or one or more of the whole cluster Nan of genes.

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